

*2
Claim*
wherein the CDR3 region is at least 90% identical with the amino sequence of (a); and wherein the T cell receptor comprising a CDR 3 region with amino acid sequence of SEQ. ID NO: 23 specifically binds kidney carcinoma cells.

REMARKS

Claims 1, 4-7, 26, 45 and 46 are pending in this application. By this Amendment, the specification and claim 2 are amended. No new matter is added.

OBJECTION TO SEQUENCE SUBMISSION

The Office Action objects to the sequence submission filed September 13, 2002. Applicant believes that this objection is overcome with the above amendments to the specification.

Section 112, Second Paragraph, Rejection

The Office Action rejects claims 2, 4-7 26 and 45-46 under 35 U.S.C. §112, second paragraph, as being indefinite for containing asserted informalities. In particular, the Office Action asserts that the phrase "a sequence 3-4 of amino acids" in Part (a) of Claim 2 is indefinite. Applicant has corrected this to read --a sequence of 3-4 amino acids-- in order to overcome this rejection.

The Office Action also asserts that the terminology "for the peptide component of the T cell receptor ligands" is not clear as to what peptides are intended or what the ligand for the T cell receptor is. Applicant has included the terminology --wherein the T cell receptor comprising a CDR 3 region with amino acid sequence of SEQ. ID NO: 23

specifically binds kidney carcinoma cells-- as suggested by the Examiner in order to overcome this rejection.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 2, 4-7 26 and 45-46 under 35 U.S.C. § 112, Second Paragraph, are respectfully requested.

Section 112, First Paragraph Rejection

The Office Action reinstates rejections under § 112, first paragraph. In particular, the Office Action asserts that the specification does not reasonably provide an enabling disclosure for a broad recitation where $X_1...X_n$, are any amino acid sequences. The Office Action also asserts that the claims contain subject matter which was not described sufficiently in the specification. As suggested by the Examiner, Applicant has added the functional language--wherein the T cell receptor comprising a CDR 3 region with amino acid sequence of SEQ ID NO: 23 specifically binds kidney carcinoma cells-- in order to overcome these rejections.

For at least the above reasons, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, First Paragraph are respectfully requested.

Conclusion

Applicant respectfully submits that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone

number listed below to schedule a personal or telephone interview to discuss any remaining issues.

Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300.

Respectfully submitted,


Robert K. Carpenter
Robert K. Carpenter
Registration No. 34,794

Customer No. 004372
AREN'T FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.,
Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810
RKC/baw

Attachment: Marked-Up Copy of Amended Specification Paragraphs and Claim

Marked-Up Copy of Amended Specification Paragraphs and Claims

Amended Specification Paragraphs

The paragraph on page 7, lines 16-21 is amended as follows:

--The amino acid sequences [X₁...X_n] are preferably selected from the group comprising the amino acid sequences YCL VGG SARQLTF (SEQ. ID NO: 46), YCL VLSG SARQLTF (SEQ. ID NO: 49), YCL DSG SARQLTF (SEQ. ID NO: 50), YCL VVSG SARQLTR (SEQ. ID NO: 51), YCL ALAG SARQLTF (SEQ. ID NO: 52), YCL APSG SARQLTF (SEQ. ID NO: 54), YCL VGR SARQLTF (SEQ. ID NO: 53), The amino acid sequence [X₁...X_n] is particularly preferably selected from the amino acid sequences YCL VGG SARQLTF (SEQ. ID NO: 46), YCL VLSG SARQLTF (SEQ. ID NO: 47), AND YCL ATG SARQLTF (SEQ. ID NO: 48),--

In the Claims:

Claim 2 is amended as follows:

2. (Five Times Amended) An isolated nucleic acid which codes for the α chain of a human T cell receptor, a single chain T cell receptor or a soluble T cell receptor fragment and comprises a CDR3 region selected from the group consisting of:

(a) a nucleotide sequence coding for the amino acid sequence
(SEQ ID NO: 23)

Y C L (X₁ . . . X_n) S A R Q L T F

in which X₁ . . . X_n represents a sequence of 3-4 [of] amino acids, wherein the amino acid sequence X₁ . . . X_n is selected from the group consisting of the

amino acid sequences VGG (SEQ. ID NO: 46), VLSG (SEQ. ID NO: 47), ATG (SEQ. ID NO: 48), VSG (SEQ. ID NO: 49), DSG (SEQ. ID NO: 50), VVSG (SEQ. ID NO. 51), ALAG (SEQ. ID NO: 52), APSG (SEQ. ID NO: 53) and VGR SEQ. ID NO: 54), and

(b) a nucleotide sequence which codes for an amino acid sequence with an equivalent recognition specificity, as achieved with a T cell receptor comprising a CDR3 region with the amino acid sequence of SEQ ID NO. 23, for the peptide component of the T cell receptor ligands;
wherein the CDR3 region is at least 90% identical with the amino sequence of (a);

and wherein the T cell receptor comprising a CDR 3 region with amino acid sequence of SEQ. ID NO: 23 specifically binds kidney carcinoma cells.